

6 SYSTEM FACILITIES, EQUIPMENT AND SERVICES

(a) System Characteristics. The HSN generally shall have at least the following characteristics:

(1) modern design when built, utilizing an architecture that will permit additional improvements necessary for high quality and reliable service throughout the Franchise term;

(2) protection against outages due to power failures, so that back-up power is available at a minimum for at least 24 hours at each headend, four hours at each hub, and conforming to industry standards, but in no event rated for less than two hours, at each power supply site;

(3) facilities and equipment of good and durable quality, generally used in high-quality, reliable, systems of similar design;

(4) a system that conforms to or exceeds all applicable FCC technical performance standards, as amended from time to time, and any other technical performance standards lawfully established by the County, and that substantially conforms in all material respects to applicable sections of the following standards and regulations to the extent such standards and regulations remain in effect and are consistent with accepted cable industry procedures for (i) technical standards applicable to Cable Systems or (ii) guidelines for physical plant construction and maintenance applicable to Cable Systems:

(A) Occupational Safety and Health Administration (OSHA) Safety and Health Standards;

(B) National Electrical Code;

(C) National Electrical Safety Code (NESC);

(D) National Cable Television Association Standards of Good Engineering Practices.

(E) Obstruction Marking and Lighting, AC 70/7460 i.e., Federal Aviation Administration;

(F) Constructing, Marking and Lighting of Antenna Structures, Federal Communications Commission Rules, Part 17;

(G) AT&T Manual of Construction Procedures (Blue Book);

(H) County and State Utility Construction Requirements;

(I) the Virginia Uniform Statewide Building Code;

(J) Virginia Department of Transportation rules and regulations;

(K) any common shared easement or joint trenching arrangements to which the Grantee is a party; and

(L) the Grantee's Construction Procedures Manual.

(5) facilities and equipment sufficient to cure violations of FCC technical standards and to ensure that Grantee's Cable System remains in compliance with the standards specified in paragraph (4);

(6) such facilities and equipment as necessary to maintain, operate, and evaluate Grantee's Cable System to comply with FCC technical standards, as such standards may be amended from time to time;

(7) status monitoring capability in new equipment obtained after the Effective Date to monitor the cable system's performance, including signal level and distortion parameters, and, among other things, alert the Grantee when and where back-up power supplies are being used, which capability shall be activated and used on or before the completion of the System Upgrade as specified in subsections 1(d) and 1(f), provided that, if the Grantee can demonstrate that such activation or use would be technically or economically infeasible, the County will waive the requirement of such activation or use until it is technically and economically feasible;

(8) all facilities and equipment designed to be capable of continuous twenty-four hour daily operation in accordance with FCC standards except as caused by a *force majeure* condition;

(9) all facilities and equipment designed, built and operated in such a manner as to comply with all applicable FCC requirements regarding (i) consumer electronic equipment and (ii) interference with the reception of off-the-air signals by a subscriber;

(10) all facilities and equipment designed, built and operated in such a manner as to protect the safety of Grantee's Cable System workers and the public;

(11) sufficient trucks, tools, testing equipment, monitoring devices and other equipment and facilities and trained and skilled personnel required to enable the Grantee to substantially comply with applicable law, including applicable customer service requirements and including requirements for responding to system outages;

(12) all facilities and equipment required to properly test the system and conduct an ongoing and active program of preventive maintenance and quality control and to be able to quickly respond to customer complaints and resolve system problems;

(13) design capable of interconnecting with other broadband communications networks (including but not limited to wireless systems) as set forth in Section 1(i) of this Agreement;

(14) antenna supporting structures (towers) designed in accordance with the Virginia Uniform Statewide Building Code, as amended, painted, lighted, erected and maintained in accordance with all applicable rules and regulations of the Federal Aviation Administration, the Federal Communications Commission, and all other applicable codes and regulations;

(15) facilities and equipment at the headend allowing the Grantee to transmit or cablecast signals in substantially the form received, without substantial alteration or deterioration. For example, the headend should include equipment that will transmit color video signals received at the headend in color, stereo audio signals received at the headend in stereo, and a signal received with a secondary audio track with both audio tracks. Similarly, all closed-captioned programming retransmitted on the HSN shall include the closed-captioned signal in a manner that renders that signal available to Subscriber equipment used to decode the captioning;

(16) Grantee shall provide adequate security provisions in its Subscriber site equipment to permit parental control over the use of Grantee's Cable Service. Such a system will at a minimum offer as an option that a Person ordering programming must provide a personal identification number provided by the Grantee only to a Subscriber. Provided, however, that the Grantee shall bear no responsibility for the exercise of parental controls and shall incur no liability for any Subscriber's or viewer's exercise or failure to exercise such controls.

(b) *Current System.* The Grantee is authorized and required to operate Grantee's Cable System as it exists on the date hereof, including without limitation the existing Institutional Network, and to provide service substantially equivalent to its existing service, within its Franchise Area as of the Effective Date of this Agreement, until such time as the HSN and Institutional Network are upgraded, as provided herein.

(c) *Integration of Advancements in Technology.* During the franchise term, the Grantee shall maintain and improve its existing facilities in accordance with accepted cable industry practices.

(d) *System Upgrade.* The Grantee shall complete a System Upgrade in accordance with the schedule set forth in subsection 1(f) providing at least the following characteristics:

(1) no microwave links in the distribution system from the headend, except as a backup to wireline systems;

(2) replacement of the current AML microwave link with fiber, in order to achieve reliable downstream transmission and a two-way system with acceptable noise and distortion properties;

(3) redundant routing between each hub site and headend of the upgraded Grantee's Cable System;

(4) segmentation of the system so that sufficient capacity is available for interactive services;

(5) Hybrid fiber-coaxial ("HFC") architecture, with fiber-optic cable at least to the feeder, so that no more than an average of 2,000 homes passed per dual coaxial cable are served from any fiber node (except that if Grantee uses single cable in any locations, there shall

be no more than an average of 1,000 homes passed per fiber node), and with the return path activated on both cables where dual cables are used;

(6) designed and built to no more than ten coaxial amplifiers (excluding any such amplifier that serves only a single subscriber) per coaxial cable in each cascade from the node;

(7) a capacity rating of at least 550 MHz for all active components obtained on or after the Effective Date of this Agreement and at least 450 MHz for active components obtained prior to the Effective Date of this Agreement, and a rating of at least 750 MHz for all passive components obtained on or after the Effective Date;

(8) computer-controlled audio leveling equipment, capable of sampling and controlling the entire audio frequency spectrum for each channel and of sampling over time, provided that Grantee reserves the right to discontinue use of this equipment if such equipment adversely affects the operation of Grantee's Cable System.

(e) *System Design Submission Process.* At least two weeks prior to the date construction of any upgrade of a segment of Grantee's Cable System is scheduled to commence, the Grantee shall submit to the County a system design and construction plan for that segment, which shall be subject to change and include at least the following elements:

(1) Design type, trunk and feeder design, and location of hubs, nodes, and amplifiers;

(2) Distribution system equipment to be used;

(3) Locations and design types for standby power.

The system design will be shown on construction-scale maps. To the extent that the Grantee revises its plan prior to construction, the Grantee shall submit a revised plan. The Grantee's submission of such plans and maps shall not operate to waive any rights of Grantee, and neither the County's receipt of such plans and maps and comments thereon, nor any comments it provides to the Grantee, shall operate to waive any rights of the County.

(f) HSN Upgrade Schedule

(1) Subject to the conditions set forth in Section 6(g)(2) herein, the Grantee shall begin construction of the HSN System Upgrade within one year after the Effective Date of the Franchise Agreement, and shall complete construction within forty-eight months after the Effective Date of the Franchise Agreement, in order to minimize disruption of any Public Rights-of-Way or public land. The Grantee's construction of the HSN and the I-Net shall proceed together as described in Appendix 2, and the Grantee and the County shall coordinate planning for I-Net construction pursuant to Appendix 2 hereto.

(2) The Grantee's construction plan and System Upgrade shall be developed without regard to income level of any portions of the Franchise Area.

(3) All construction shall be performed in accordance with applicable provisions of the Cable Ordinance and this Agreement, except where specifically waived in writing by the Communications Administrator or his designee.

(g) Periodic Progress Reporting.

(1) Following the commencement of construction of the System Upgrade or any similar major construction, every three months until the construction is completed, the Grantee shall meet with the County and provide an update on the progress of the System

Upgrade according to the Grantee's then-current general plan, unless the County waives such meeting. Upon request, the Grantee shall provide detailed written reports to the County on the Grantee's progress in construction.

(2) Delays in the System Upgrade. The Grantee shall not be excused from the timely performance of its obligation to begin and complete any System Upgrade within the times specified herein, except for the following occurrences:

(A) Any "*force majeure*" situation, as described in Section 12 herein;

(B) Failure or delay by the County, VDOT or any governmental instrumentality, agency or any utility to issue any permits or permission upon a timely request submitted by the Grantee or its contractor representative and tender (except as to a County permit) of any required permit fee;

(C) Delays beyond the control of the Grantee that the Grantee could not reasonably have anticipated regarding the availability, shipment and arrival of necessary equipment, cables, electronics or hardware, protracted underground excavation, easement availability, or any other valid factor fully explained and reasonably justified in writing to the Communications Administrator or his designee.

(h) *Leased Access Channels.* The Grantee shall provide leased access channels as required by federal law.

(i) *Interconnection.*

(1) The Grantee shall design Grantee's Cable System so that it is capable of interconnecting with other broadband communications networks (including but not limited to wireless systems) at suitable locations as determined by the Grantee. Interconnection

capabilities shall be provided for the exchange of all PEG signals designated in Section **Error! Reference source not found.** herein carried on the HSN. Interconnection of systems may be made by direct cable connection, microwave link, satellite or other appropriate methods.

(2) At the request of the Communications Administrator, the Grantee shall, to the extent permitted by applicable law and its contractual obligations to third parties, use every reasonable effort to negotiate an interconnection agreement with any other franchised Cable System in Fairfax County for the PEG channels on the HSN. Grantee will continue to interconnect with the Cable System in the Reston franchise area.

(3) Grantee will continue to interconnect the I-Net with the institutional network of the franchised Cable System in the Reston franchise area as long as there is such a Reston institutional network. Any County I-Net connections to other broadband networks will be the County's sole responsibility and done at the County's expense, but the Grantee will assist in any such effort as reasonably requested.

(4) The Grantee shall notify the County prior to any interconnection of Grantee's Cable System with other broadband communications networks.

(5) The Grantee shall in good faith cooperate with the County in implementing interconnection of PEG Cable Service with communications systems beyond the boundaries of the County.

(j) Emergency Alert System.

(1) The Grantee shall install and thereafter maintain for use by the County an Emergency Alert System ("EAS").

(2) This EAS shall at all times be operated in compliance with FCC requirements. Subject to the foregoing, the EAS shall be remotely activated by telephone and shall allow a representative of the County to override the audio and video on all channels on the Grantee's Cable System that may lawfully be overridden (subject to any contractual or other rights of local broadcasters) without the assistance of the Grantee, for emergency broadcasts from a location designated by the County in the event of a civil emergency or for reasonable tests.

(3) The County will provide reasonable notice to the Grantee prior to any test use of the EAS. The Grantee shall cooperate with the County in any such test to the maximum extent feasible.

(k) *Uses of System.* Grantee will notify the County of all active uses of the Grantee's Cable System as promptly as possible after the institution of such uses.

(l) *Home Wiring.* Grantee shall comply with all applicable FCC requirements, including any notice requirements, with respect to home wiring. Prior to a customer's termination of Cable Service, the Grantee will not restrict the ability of a Subscriber to remove, replace, rearrange or maintain any cable wiring located within the interior space of the Subscriber's dwelling unit, so long as such actions are consistent with FCC standards. The Grantee may require a reasonable indemnity and release of liability in favor of the Grantee from a Subscriber for wiring that is installed by such Subscriber.

(m) *Antenna Towers*

(1) The Grantee may continue to maintain, repair and use antennas and antenna towers at certain sites belonging to the County, pursuant to the terms of the agreements

under which the Grantee leases such sites from the County, including any payments to the County and any extensions of the lease term specified in such agreements, as long as the Grantee continues to use such sites for delivery of Cable Service, including the normal or backup microwave distribution of programming to hubs and/or mobile radio used by the Grantee's employees or subcontractors on business related to Grantee's Cable System. Such existing leases for such towers shall be extended through the term of this Agreement. Compensation received by the County for such antenna leases shall not be considered a franchise fee.

(2) To the extent that the Grantee uses such antenna towers on County sites for commercial purposes not directly related to Grantee's Cable System or the provision of Cable Service, such towers and the Grantee's use and occupancy of such towers shall be subject to all County policies, laws and regulations in effect from time to time relating to such towers, including any compensation and collocation requirements; provided, however, that the County shall not be due any compensation with respect to existing tenants of the Grantee on antenna towers on County sites as of the Effective Date, and provided further that any collocation requirements shall not interfere with the rights of such existing tenants.

(n) *Periodic Performance Evaluation.* The County may schedule periodic review sessions to evaluate the performance of the Grantee. The Grantee shall cooperate with the County in any such evaluation to the maximum extent feasible.

(o) *Tenth-Year Anniversary Review.*

(1) The provisions of this Section 1(o) shall not apply if, at the time of the review as specified in Section 1(o)(3) or at any time subsequent to such review, the Grantee is subject to effective competition as defined in 47 U.S.C. § 543(l).

(2) As used in this Section 1(o), the term Economically and Technically Feasible and Viable shall mean Cable Services capable of being provided: (i) through technology which has been demonstrated in actual applications (not simply through tests or experiments) to operate in a workable manner; and (ii) in a manner which has a reasonable likelihood of generating acceptable returns on investment for the Grantee's Cable System over the remaining term of the Franchise that are at a rate that is in no event less than the overall rate of return then earned by Grantee's Cable System.

(3) To the extent authorized pursuant to this Section 1(o), the County may conduct a service review (the "Review") that shall commence not earlier than the 10th anniversary of the Effective Date of this Franchise Agreement. The sole purpose of such Review shall be to ascertain whether the Cable Services offered by Grantee or proposed to be offered by Grantee during the remaining term of the Franchise conform with Cable Services generally available on Cable Systems in communities substantially similar to the County.

(4) The Review conducted by the County pursuant to this section shall be confined solely to a review of the Cable Services generally available in substantially similar communities on the home subscriber network of the Cable Systems of such communities. Based upon the County's evaluation of cable related needs and interests of Fairfax County residents and the County's assessment that it is Economically and Technically Feasible and Viable for the Grantee to satisfy such needs and interests, the County shall issue a determination specifying with particularity (i) the Cable Services that Grantee is not then providing or has not proposed to provide within a reasonable time frame, and (ii) the basis for the County's determination that it is

Economically and Technically Feasible and Viable for the Grantee to provide the Cable Services specified. Grantee shall reasonably cooperate with the County in conducting the Review.

(5) Upon receipt of the County's written report of its initial determinations, Grantee shall submit a response within 120 days. Such response shall identify which Cable Services specified in the County's initial review report are Economically and Technically Feasible and Viable for Grantee to provide, including any changes in technology that Grantee deems necessary to support such Cable Services and any plans or timetables for the implementation of any such Cable Services. Such response shall further identify any Cable Services specified in the County's report that Grantee determines are not Economically and Technically Feasible and Viable for Grantee to provide.

(6) To the extent that Grantee and County are in agreement with respect to all of the Cable Services specified in the County's report on its initial determinations, the Grantee and County shall amend this Franchise Agreement as required to reflect the provision of such Cable Services.

(7) If, after receiving Grantee's response, the County determines to seek amendment to the Franchise to encompass one or more Cable Services that Grantee determines are not Economically and Technically Feasible and Viable for Grantee to provide, the County shall commence an administrative proceeding to determine whether the Cable Services which the County desires the Grantee to provide, but the Grantee is not willing to provide as requested, are in fact necessary to meet the cable-related needs and interests of the County's residents and are Economically and Technically Feasible and Viable for the Grantee to provide.

(8) Any such proceeding shall be public, shall be conducted upon adequate notice to Grantee, and the Grantee and the County shall be afforded fair opportunity for full participation, including the right to introduce evidence (including evidence related to issues of cable-related needs and interests of the County's resident and whether the Cable Services requested are Economically and Technically Feasible and Viable), to require the production of evidence, and to question witnesses. A transcript shall be made of the proceeding.

(9) At the completion of the proceeding, the County shall issue a written order (the "Review Assessment Order") specifying (i) each additional Cable Service that the County deems appropriate to meet the cable related needs and interests of Fairfax County residents, (ii) the reasons why the provision of each Cable Service specified in (i) is Economically and Technically Feasible and Viable, and (iii) the extent to which each such Cable Services is being provided by any other multi-channel video programming distributor then serving subscribers in the County. Such written order shall be based upon the record of the administrative proceeding and shall state the reasons for its decision.

(10) Upon receipt of the County's Review Assessment Order, Grantee shall have the following options: (i) Grantee may agree to comply with the Review Assessment Order, in which event the parties shall amend this Franchise Agreement accordingly; (ii) Grantee may accept such Review Assessment Order under protest and seek relief from all or any part of such Review Assessment Order pursuant to 47 U.S.C. § 545(b), and in that event, any timetables or construction schedules specified in the Review Assessment Order shall be deemed tolled until the issuance of a determination on the merits of a petition filed by Grantee pursuant to Section 545(b) by the Court of original jurisdiction and any appeals taken therefrom; or (iii) if, after the

passage of 120 days after its receipt of the Review Assessment Order, Grantee has not exercised either option (i) or (ii) above, then the County may notify the Grantee that the County wishes to commence proceedings to renew the Franchise, and such action shall be deemed to be a request by the Grantee to commence renewal proceedings pursuant to 47 U.S.C. § 546, in which event the Franchise term will be deemed to expire 36 months from the date of such notice.

(11) If Grantee accepts the Review Assessment Order or otherwise agrees to provide additional Cable Services, the term of this Franchise Agreement shall be extended for such additional period of years (commencing with the normal expiration date of this Franchise Agreement) as the parties shall mutually agree, but in no event less than five years.